

was justified, from his own stand-point for declining to award them space in the *Journal*, and his refusal, at first, to publish them has in no way diminished my regard for him.

But I do not believe that my reasons will be considered ridiculous by others who approach the topic from a different stand-point, and who have recognized the necessity of adopting methods of procedure which will render the system of nomenclature stable, which is all the "neo-American school" is trying to accomplish and for which it, and all naturalists, have abundant authority. It is perfectly clear that as long as we allow ourselves a choice of names in any way, so long will authors differ in their acceptance and the settling of this important matter be deferred. That this end can be, at least approximately, reached by priority, has been the judgment of most recent naturalists. Whether some entirely different method may not commend itself to those of future decades or some radical modification of the principles now employed be resorted to, it is at present impossible to surmise. It is, perhaps, not unlikely that some such move will be made. The American Ornithologists Union settled it so far as they were concerned, by driving bird names back as far as they could, and then as a body adopted the results thus reached, so that they have been maintained for a considerable number of years. This process has commended itself to some others, but has not been put into operation elsewhere, so far as I am informed.

At all events, under the present methods of botanists it is important that all possibility of choice be removed as far as this is possible. For this reason I regard the "law" of the Paris Congress cited by Mr. Britten as authority for the use of *Buda* rather than *Tissa* as unfortunate and detrimental, and do not consider myself at all bound to follow it.

The number of cases in which change is desirable by reason of priority of place is not great. Mr. Britten cites the one of *Amygdalus* Linn. and *Prunus* Linn., the first standing on a page preceding the position of the second, and pointing out that he thinks it would be necessary to call all the species now in *Prunus*, *Amygdali*. It certainly would be strange for a while to make this substitution, but I think he has selected an unfortunate example in support of his argument. While it would probably be quite as philosophical to call a plum a peach, as a peach a plum, I personally prefer to call a peach a peach, and am prepared to maintain that *Amygdalus* and *Prunus* are distinct genera.

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"Biology" again.

Your July and September editorials which admirably voiced my own sentiments which had been "struggling for utterance," and the reply in the October number have so much interested me that I am overtempted to add a word.

Whether progressive zoölogists have become ashamed of the word "zoölogy" or not, they have precisely the same reason for such a feeling as have we for shrinking from "botany;" and we have precisely the same reason for claiming to teach "biology" as they. Your correspondent, who writes in the October number, misses the real point entirely. If he could claim that all biological principles can be deduced from the facts of zoölogy, he might, indeed, then say, "Why should not he claim the word biology?" Otherwise, even though the biological study of plants were not yet begun, his claim is wholly unfounded. Though it be true

that, so far as real biological teaching in this country is concerned, the zoölogists were the pioneers, is it less to the credit of American botanists that they could escape from the old traditions and recognize the vivifying influence of the new ideas? It is true, perhaps, that American botanists have hardly yet recognized the full applicability of what are called "zoölogical methods" to the solution of many of their own problems; but is that any reason why zoölogists should calmly assume that all the necessary data for biological generalizations are to be derived from animal sources? May it not be suggested to the (animal) "biologist" who does condescend to demonstrate to his class the streaming of protoplasm in *Nitella* or karyokinesis in the root-tip of an onion, that this slight recognition of the superiority of vegetable tissues for the study of vital phenomena might well be carried much further if he but knew it.

That there are many colleges where botany is a mere species-grind, we all know too well, but, is our "prominent zoölogist" so guileless as to imagine that there is none of the quality of a boomerang in such a statement? If so, I beg to assure him that there are colleges of repute, yes, and "universities," where botany is well taught, while the zoölogy is a round of counting scales or tail-feathers; and there are still others where, as between the two, the choice is that of "the devil or the deep sea."

The GAZETTE's complaint is a very timely and just one. I have heard one of the leaders of American zoölogy remark upon this very condition of things to the effect that he could not understand why botanists remain silent while chairs of biology are repeatedly filled with zoölogists pure and simple, whose teachings, if not their conceptions, of biology are wholly one-sided. And he added, "If I were a botanist, I should be heard from." But, if some one says he can do better by himself and by his students if he confines his work to the animal kingdom, we shall have no quarrel. I believe it is best for the occupant of a chair of biology to be either a zoölogist or a botanist, for the obvious reason that it is best for a man to teach well what he teaches. The wrong thing is that there should be chairs of biology. It is absurd to expect a man to cover the field of modern biology. Yet, in how many institutions where no one would think of expecting one man to teach physics and chemistry or English literature and rhetoric, must one man stagger under that load.

If there is money to employ but one man, make the best of it and see that zoölogy or botany is well taught, but don't delude your students with the idea that they are to become biologists in a term. In the name of common honesty and sound ideas let us "call a spade a spade," and not a subsoil plough.

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Mounting plants.

Some articles in the BOTANICAL GAZETTE of October called attention to establishment of "Biological Surveys," and the editors made some very striking remarks concerning the present stage of our botanical explorations; "that botanists should consider plants as biological problems more than specimens to be catalogued, etc." The great importance of Biological Surveys is only too clear, and although I do not intend to discuss this subject more than has already been done, I should like to call attention to a certain point, which undoubtedly ought to be taken in consideration, and which might form an additional remark to those of the editor's, mentioned above. It is merely in regard to the preservation of our herbaria. The specimens in the herbaria should not only be pre-